

REMARKS

Claims 1-13, 16-38, 40-42, 44-59 and 61-63 are currently pending in the subject application and are presently under consideration. Claims 1, 2, 13, 20, 35, 37, 40-42, 44-47, 57, 59, 62 and 63 have been currently amended while claims 14, 15, 39, 43, and 60 have been canceled as shown on pages 2-10 of the Reply.

Additionally, applicants' representative thanks Examiner Bayard for the teleconference of June 6, 2007. The Examiner indicated that claims 1, 35, 59 and 62 overcome existing rejections however, the claims as amended may be subject to restriction.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1-63 Under 35 U.S.C §112

Claims 1-63 stand rejected under 35 U.S.C §112, first paragraph, as failing to comply with the enablement requirement. It is contended that the claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Withdrawal of this rejection is requested for at least the following reasons. Independent claims 1, 35, 59 and 62 have been amended to recite that the obfuscation of inner mechanism of a spam filter is achieved by modifying the scores for messages with a hash value that is generated based on various features extracted from the message. In particular, features that contribute above a threshold to the message score are selected in generating the hash value (*See* applicants' specification page 3 line 26 – page 4 line 3). Similarly independent claims 20, 47, 63 and the claims that depend there from are directed towards hindering reverse engineering of spam filters by selectively applying a plurality of filters to users based on various criteria. Hence, it is submitted that these claims clearly enable one of ordinary skill in the art to which it pertains to make and/or use the invention. In view of the aforementioned, this rejection should be withdrawn.

II. Rejection of Claims 1-19, 59-61 Under 35 U.S.C §112

Claims 1-19, 59-61 stand rejected under 35 U.S.C §112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the

elements. This rejection should be withdrawn in view of the aforementioned amendments to independent claims 1 and 59 which recite steps performed by the randomization component to obfuscate the mechanism of a spam filter.

III. Rejection of Claims 20-34 Under 35 U.S.C §112

Claims 20-34 stand rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. This rejection should be withdrawn in view of at least the following. Claim 20 and its dependent claims recite a filter selection component that selects one or more filters to be deployed for use by at least one of the plurality of users wherein the selection is based on various criteria such as time of the day, time increments etc. From the foregoing it is clear that the claims enable one of ordinary skill in the art to make and use the invention. Hence, this rejection should be withdrawn.

IV. Rejection of Claims 35-46, 57 and 62 Under 35 U.S.C §112

Claims 35-46, 57 and 62 stand rejected under 35 U.S.C §112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. This rejection should be withdrawn in view of the aforementioned amendments to independent claims 35 and 62 which recite steps performed by the randomization component to obfuscate the mechanism of a spam filter.

V. Rejection of Claims 47-56 and 63 Under 35 U.S.C §112

Claims 47-56 and 63 stand rejected under 35 U.S.C §112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. This rejection should be withdrawn in view of at least the following. Claim 47 and its dependent claims recite selectively deploying one or more filters for use by one or more of a plurality of users wherein the selection is based on various criteria such as time of the day, time increments etc. Independent claim 63 recites similar features. From the foregoing it is clear that the claims enable one of ordinary skill in the art to make and use the invention. Hence, this rejection should be withdrawn.

VI.a Rejection of Claims 1-8, 10-19, 35-37 and 39-46, and 59- 62 Under 35 U.S.C. §102(e)

Claims 1-8, 10-37 and 39-63 stand rejected under 35 U.S.C. §102(e) as being anticipated by Wang (U.S. 2004/0199585). It is submitted that this rejection should be withdrawn for at least the following reasons. Wang does not describe each and every element of the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently *describes each and every limitation* set forth in the patent claim. *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2D 1597 (Fed. Cir. 2002). “A claim is anticipated only if *each and every element* as set forth in the claim is found, either expressly or inherently *described* in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “The *identical invention* must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The claimed subject matter generally relates to systems and methods for reducing the transmission of spam and in particular to hindering reverse engineering of a spam filter and/or to mitigate modeling and prediction of spam filters performance by spammers. To this end, independent claims 1, 35, 59 and 62 recite similar features namely: *a randomization component that randomizes scores of the filter for one or more messages based at least in part upon a hash computed to randomize the message score, the hash is computed based at least in part upon one or more features extracted from the message whose respective individual contributions to the message score exceed a threshold, thus obfuscating the functionality of the spam filter.* Wang does not teach or suggest such claimed aspects.

Wang relates to identifying and tracking e-mail senders initiating undesirable activities by utilizing a penalty count filter module integrated into the front end of a mail transfer agent in a communication device, so that subsequent e-mail disruptions to the receiving device can be mitigated (See Wang paragraph [0004] lines 1-6). Accordingly, Wang teaches a penalty count filter module that determines the disposition of incoming email on the basis of currently communication system resource usage and penalty counts assigned for cumulative undesirable sender activity (See Wang paragraph [0004] lines 6-10). The cumulative penalty count is a time dependent parameter associated with a sender ID (SID) which is calculated based on a given formula and updated in accordance with the sender behavior (See Wang paragraphs [0023] and

[0024]). Hence, the cumulative penalty count is a calculated parameter that characterizes the sender rather than a randomized score for each message as recited in the claims. Moreover, on page 8 of the subject Office Action it is erroneously contended that Wang teaches computing a hash value based at least in part upon one or more features extracted from the message whose respective individual contributions to the message score exceed a threshold. At the cited portion, Wang teaches a process of looking up sender identifier values optimized by using keys computed from the SID (sender identifier) to hash the behavior of trace table (*See* Wang paragraph [0053] lines 1-4). Such is not randomizing message scores based on a hash value generated from one or more features extracted from the message whose respective individual contributions to the message score exceed a threshold as recited in the subject claims. By generating such a hash value to randomize message scores, the subject claims facilitate obscuring from spammers, the exact message features that are employed by the filters in separating spam from non-spam messages (*See* applicants' specification page 3 line 30 – page 4 line 3).

In view of at least the foregoing, it is clear that an identical invention as recited in the subject claims is not taught or suggested by Wang. Hence, withdrawal of this rejection is requested with respect to independent claims 1, 35, 59, 62 and all the claims that depend there from.

VI.b Rejection of Claims 20-34, 47-56 and 63 Under 35 U.S.C. §102(e)

Claims 20-34, 47-56 and 63 stand rejected under 35 U.S.C. §102(e) as being anticipated by Wang (U.S. 2004/0199585). It is submitted that this rejection should be withdrawn for at least the following reasons. Wang does not teach or suggest an identical invention as recited in the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently *describes each and every limitation* set forth in the patent claim. *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2d 1597 (Fed. Cir. 2002). “A claim is anticipated only if *each and every element* as set forth in the claim is found, either expressly or inherently *described* in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “The *identical invention* must be shown in as complete

detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The claimed subject matter generally relates to systems and methods for reducing the transmission of spam and in particular to hindering reverse engineering of a spam filter and/or to mitigate modeling and prediction of spam filters performance by spammers. To this end, independent claims 20, 47 and 63 recite similar features namely: ***a filter selection component that selects at least a subset of two or more of the plurality of spam filters to be deployed for use by at least one of the plurality of users.*** Wang does not teach or suggest such claimed aspects.

On page 5 of the subject Office Action, it is erroneously contended that Wang teaches using a plurality of spam filters for classifying messages. Wang relates to a mail transfer agent comprising a penalty count filter module that can operate in a plurality of states (normal/selective rejection/random rejection) to accept or reject email from various senders depending on a calculated penalty count associated with the sender (*See* Wang Abstract). Hence, Wang employs the same penalty count filter module to filter emails from different users. In contrast, the subject claims relate selectively deploying at least a subset of a plurality of filters for use by users. Thus different filters can be applied to different users as different subsets of the plurality of filters can be selected. This facilitates using multiple spam filters instead of using a single spam filter, thereby hindering modeling and prediction of spam filter performance by spammers. Such novel aspects are not taught or suggested by Wang.

In view of at least the foregoing, it is clear that an identical invention as recited in the subject claims is not taught or suggested by Wang. Hence, this rejection should be withdrawn with respect to independent claims 20, 47, 63 and all the claims that depend there from.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP439US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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